Solicitation #N68836-16-T-0117 Indoor Antenna and Radome Radar Range Upgrades

1. I want to verify that is a Firm, Fixed Price requirement. Is that correct?

   Answer: Yes, this is a Firm Fixed Price contract. This is mentioned in the solicitation right before the due time and date and the SOW (please see Section 1.8 of the SOW).

2. Section 5.2.15 of the SOW states "The resulting motion control system after upgrade shall provide boresight error/beam deflection measurement readout accuracy of +/- 0.1mrad (0.0057 degrees)..." can you verify that this will be accomplished with the autocollimator?

   Answer: The Radome Range autocollimator is not needed to verify readout accuracy defined in Section 5.2.15. The intended verification method is specified in Sections 5.3.b.1 and 5.3.b.2 for transmission efficiency and beam deflection readout accuracy, respectively.

   As stated in Section 5.2.15., the RAZ feedback functional is presently not reliably operations. At present, RAZ motion control is accomplished using an integral motor feedback encoder for position and velocity feedback data. When switching the RAZ feedback from the integral motor feedback to a Renishaw encoder system, Position Feedback Errors (or Over Current Faults) are sent from the Aerotech Ensemble CP controller system, preceded by an erratic, side-to-side motion of the Positioner. Several attempts were made to resolve the problem by adjusting alignment of the sensor Read head and Ring. Positioner motion could not be stabilized to verify repeatability, and the problem is best described as persistent instead of intermittent. Renishaw representatives attempted to troubleshoot the problem remotely but suggested that installation tolerances for the Read Head and Ring Assembly may have been too imprecise.

3. Can you elaborate on the nature of the problem with the Radome positioner lower Az encoder? Is it not repeatable? Is the signal intermittent?

   Answer: At present, Radome azimuth motion control is accomplished using an integral motor feedback encoder for position and velocity feedback data. When switching the Radome Azimuth feedback from the integral motor feedback to a Renishaw encoder system, Position Feedback Errors (or Over Current Faults) are sent from the Aerotech Ensemble CP controller system, preceded by an erratic, side-to-side motion of the Positioner. Several attempts were made to resolve the problem by adjusting alignment of the sensor Read head and Ring. Positioner motion could not be stabilized to verify repeatability, and the problem is best described as persistent instead of intermittent. Renishaw representatives attempted to troubleshoot the problem remotely but suggested that installation tolerances for the Read Head and Ring Assembly may have been too imprecise. Please refer to answer #2 for further information.

4. Antenna range far field mode: should this operate .1-2 GHz or .1 to 40?

   Answer: The required Antenna Range far-field operation is .1 GHz to 40 GHz, please see Section 5.1.1.

NOTE: Radome Range far field operation (defined in paragraph 5.2.7) is .1 to 2 GHz, same as the present design.

5. Confirm upper frequency of the antenna range compact range 18 GHz or 40 GHz?

   Answer: Upper frequency operation in the Antenna Compact Range is 18 GHz (please see Section 5.1.1). Far-field operation in Antenna Range (opposite end from Compact Range reflector) must have upper frequency operation of 40 GHz. See also answer #4 for further information.

6. In the SOW document, in section 3.5, it is stated that the Government would be providing 2 documents as listed there as:

   a. Local Engineering Specification No. 45500-01-2014, ALR-67 V(3) Antenna Detectors Electrical Testing Of

   b. Local Engineering Specification No. 45500-01-2015, APS-115 Radar Antennas, Electrical Testing Of

   Can you provide these documents for our review or provide a link to viewing them on the internet?

   Answer: The Local Engineering Specifications are available upon request via email.